PHASE I BOOK EXPLOITATION   SOV/1886

3(5)

Po'yedinennaya nauchnaya sessiya po metallogenicheskim i prognoznym
kartam, Alma-Ata, 1958.

Materialy nauchnoy sessii po metallogenicheskim i prognoznym kartam
Sredney. (Materials Presented at the Scientific Session on Metal-
logenetic and Postulated Ore Occurrence Maps; Reports) Alma-Ata,
Izd-vo AN Kazakhskoy SSR, 1958. 318 p. Errata Slip Inserted.
3,850 copies printed.

Ed.: A.K. Pogrebov; Tech. Ed.: P.F. Alferova.

Sponsoring Agencies: (1) Akademiya nauk SSSR, (2) Akademiya nauk
Kazakhskoy SSR, Alma-Ata, (3) USSR, Ministerstvo geologii i okhrany
nedr, (4) Kazakh SSR. Ministerstvo geologii i okhrany nedr.

PURPOSE: This book is intended for exploration geologists, mining
engineers, and cartographers.

Materials Presented (Cont.)   SOV/1886

COVERAGE: This collection of reports was presented at the United
Scientific Session on Metallogeny and Postulated Ore Occurrence
Maps convoked by the Academy of Sciences in Alma-Ata, December
1958. The reports deal with various aspects of compiling metal-
logenetic and ore occurrence maps as well as the methodology and
techniques of correlating geophysical exploration data. These
reports deal only with non-ferrous metals. Three other reports
delivered at the conference but not included in this work were
read by Ye.Ye. Zakharov, F.S. Shatskiy, and Yu.K. Gorетskiy.
References accompany each article.

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Materials Presented (Cont.)   SOV/1886

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SATPAYEV, K.I.; BORUKAYEV, R.A.; AKHMEDSAFIN, U.M.; BOK, I.I.; KUSHEV, G.L.; SERGIYEV, N.G.; SHLYGIN, Ye.D.; SHCHERBA, G.N.; MONICH, V.K.; LOMONOVICH, I.I.; LAVROV, V.V.; MEDOYEV, G.TS.; NOVOKHATSKIY, I.P.; BARBOT-DE-MARNI, A.V.; GALITSKIY, V.V.; KOLOTILIN, N.F.; ZHILINSKIY, G.B.; KAYUPOV, A.K.; KAZANLI, D.N .; SATPAYEVA, T.A.; ABDULKABIROVA, M.A.; GAZIZOVA, K.S.; VEYTS, B.I.; KHAYRUTDINOV, D.Kh.; MUKHAMEDZHANOV, S.M.; CHOLPANKULOV, T.Ch.; PARSHIN, A.V.; TAZHIBAYEVA, P.T.; YANULOVA, M.K.; BYKOVA, M.S.; VOLKOV, A.N.; BOLGOV, G.N.; MITRYAYEVA, N.M.; CHOKABAYEV, S.Ye.; KUNAYEV, D.S.; YARENSKAYA, M.A.; REBROVA, T.I.

Tireless explorer of the depths of the earth's crust; on the 65th birthday and 40th anniversary of the scientific engineering activities of Academician M.P. Rusakov. Vest. AN Kazakh. SSR 13 no.12:96-97 D '57.

(MIRA 11:1)

(Rusakov, Mikhail Petrovich, 1892-)

BAKHTYUKOV, V.M., inzh.; ZHILINSKIY, I.B., kand.tekhn.nauk, dotsent; SMIRNOV, V.I., kand.tekhn.nauk

Effect of the velocity of the surrounding medium on the disintegration characteristics of cylindrical jets of liquid. Izv.vys. ucheb.zav.; energ. 8 no.4:101-1C4 Ap '65.

(MIRA 18:4)

1. Moskovskiy institut khimicheskogo mashinostroyeniya.

ZHILINSKIY, I.B., kand.tekhn.nauk

Methods for calculating the economic efficiency of a steam
power plant. Trudy MIKHM vol.16:141-145 '58.   (MIRA 14:7)
                    (Steam power plants)

PINAYEV, A.V., kand.tekhn.nauk, dotsent; ZHILINSKIY, I.B., kand. tekhn. nauk

Use of spiral coil refrigerators in the manufacture of resins.
Trudy MIKHM vol.16:72-82 '58.
(Resins, Synthetic) (Refrigeration and refrigerating machinery)
                                                    (MIRA 14:7)

ZHILINSKIY, I.B.

PHASE I BOOK EXPLOITATION   SOV/3685
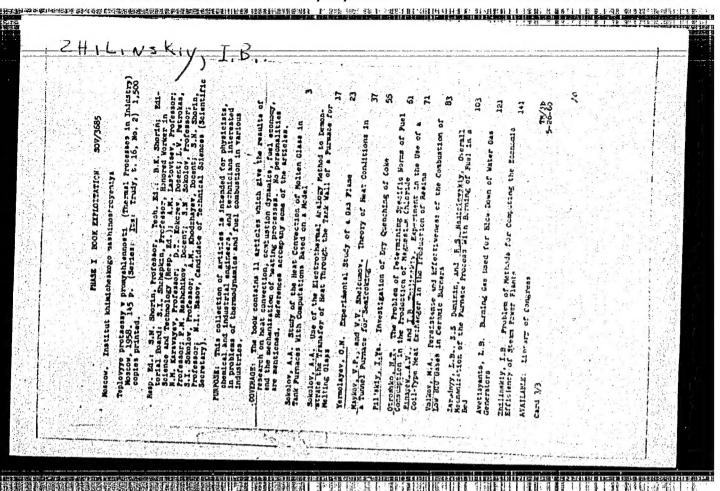
Moscow. Institut khimicheskogo mashinostroyeniya

Toplovyye protsessy v promyshlennosti (Thermal Processes in Industry) Moscow, 1958. 145 p. (Series: Its: Trudy, t. 16, No. 2) 1,500 copies printed.

Resp. Ed.: S.N. Shorin, Professor, Tech. Ed.: B.K. Shorin; Editorial Board: S.I. Shchepkin, Professor, Honored Worker in Science and Technology (Resp. Ed.); A.M. Lastovtsev, Professor; M.M. Kiravyev, Professor, D.I. Kokorev, Docent; I.V. Petrokas, Professor; P.N. Romchikov, Docent; S.N. Sokolov, Professor; S.I. Sokolov, Professor; A.N. Khodzhayev, Docent; S.N. Shorin, Professor; N.I. Basov, Candidate of Technical Sciences (Scientific Secretary).

PURPOSE: This collection of articles is intended for physicists, chemical and industrial engineers, and technicians interested in problems of thermodynamics and fuel combustion in various industries.

COVERAGE: The book contains 11 articles which give the results of research on heat convection, combustion dynamics, fuel economy, and the mechanization of heating processes. No personalities are mentioned. References accompany some of the articles.

Sokolov, A.A. Study of the Heat Convection of Molten Glass in Tank Furnaces With Computations Based on a Model   3

Sokolov, A.A. Use of the Electrothermal Analogy Method to Demonstrate the Transfer of Heat Through the Tank Wall of a Furnace for Melting Glass   17

Yermolayev, O.N. Experimental Study of a Gas Flame   23

Maykov, V.P., and V.V. Shelomov. Theory of Heat Conditions in a Tunnel Furnace for Semicoking   37

Pilevskiy, I.M. Investigation of Dry Quenching of Coke   55

Osroshko, N.A. The Problem of Determining Specific Norms of Fuel Consumption in the Production of Magnesium Chloride   61

Pinyev, A.V. and I.B. Zhilinskiy. Experiment in the Use of a Coil-Type Heat Exchanger in the Production of Resins   71

Valkov, M.A. Persistence and Effectiveness of the Combustion of Low BTU Gases in Ceramic Burners   83

Zaydlovyy, I.B., S.S. Dumirin, and K.S. Maleckovskiy. Overall Mechanization of the Furnace Process With Burning of Fuel in a Bed   103

Avetisyants, L.S. Burning Gas Used for Blow-Down of Water Gas Generators   121

Zhilinskiy, I.B. Problem of Methods for Computing the Economic Efficiency of Steam Power Plants   143

AVAILABLE: Library of Congress

Card 1/3

TM/ib
5-26-63

AUTHOR: Zhilinskiy, K. A.

TITLE: On Design Calculation of Groups of Low Piles (K raschetu nizkikh svaynykh rostverkov)

ABSTRACT: Bibliographic entry
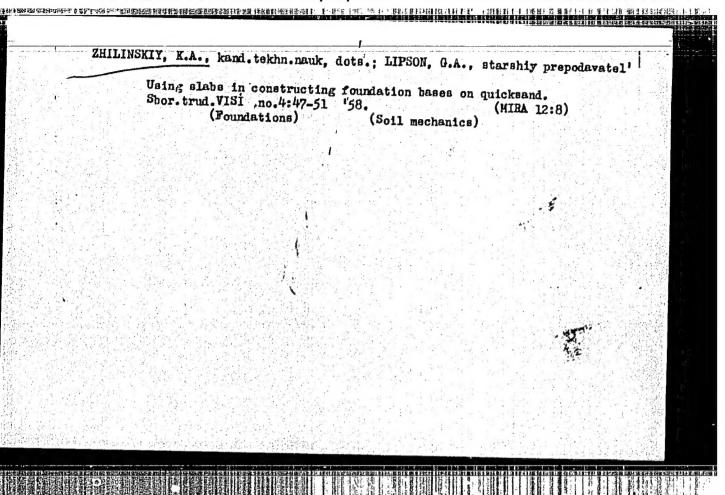
Card 1/1

ZHILINSKIY, K.A., kand.tekhn.nauk, dots.; LIPSON, G.A., starshiy prepodavatel'

Using slabs in constructing foundation bases on quicksand.
Sbor.trud.VISI ,no.4:47-51 '58.   (MIRA 12:8)
        (Foundations)   (Soil mechanics)

KORENEV, B.G.; ZHILINSKIY, K.A.; BUNIN, N.N. [translator]; BUNKIN, O.I.
[translator]; GRISHINA, M.M. [translator]

Reviews and bibliography. Osn., fund.i mekh.grun. no.6:
30-3 of cover '59.   (MIRA 13:4)
(Bibliography--Foundations) (Bibliography--Soil mechanics)

ZHILINSKIY, K.A. (Voronezh)

Two remarks on the article by B.I.Dalmatov "Rated resistance
of clayey soil foundations." Osn., fund.i mekh.grun. 2
no.1:29 '60.   (MIRA 13:5)
       (Clay) (Foundations) (Dalmatov, B.I.)

ZHILINSKIY, K. A.

"Calculation of Rigid Rectangular Foundations." Cand Tech Sci, Moscow Construction
Engineering Inst, Moscow, 1953. Dissertation (Referativnyy Zhurnal--Mekhanika
Moscow, Feb 54)

SO: SUM 186, 19 Aug 1954

BEREZANTSEV, V.G. (Leningrad); GOLUBKOV, V.N.; ZHILINSKIY, K.A., dotsent; MAKAROCHKIN, M.F., prof.; MEDKOV, Ye.I., prof.; BALUSHEV, B., prof.; MYSLIVETS, A., professor doktor (Praga, Chekhoslovakiya)

"Foundations" by N.A. TSytovich. Reviewed by V. G. Berezantsev and others. Osn., fund. i mekh. grun. 3 no.1:28-29 '61.   (MIRA 14:3)

1. Zaveduyushchiy kafedroy osnovaniy i fundamentov Odesskogo inzhenerno-stroitel'nogo instituta (for Golubkov). 2. Voronezhskiy inzhenerno-stroitel'nyy institut (for Zhilinskiy). 3. Zaveduyushchiy kafedroy Belorusskogo politekhnicheskogo instituta chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR (for Makarochkin). 4. Zaveduyushchiy kafedroy Moskovskogo instituta inzhenerov zhelezno-dorozhnogo transporta (for Medkov). 5. Ot litsa kafedry osnovaniy i fundamentov Inzhenerno-stroitel'nogo instituta, Sofiya, Bolgariya (for Balushev). 6. Chlen-korrespondent Cheshskoy akademii nauk (for Myslivets).

(Foundations)
(TSytovich, N.A.)

ACC NR: AM6029203   Monograph   UR/

Zhilinskiy, Kazimir Yanovich

Insulation of the refrigerated areas of ships; modern methods of cal-
culation (Teploizolyatsiya sudovykh refrizheratornykh pomeshcheniy;
sovremennyye metody rascheta) Leningrad, Izd-vo "Sudostroyeniye,"
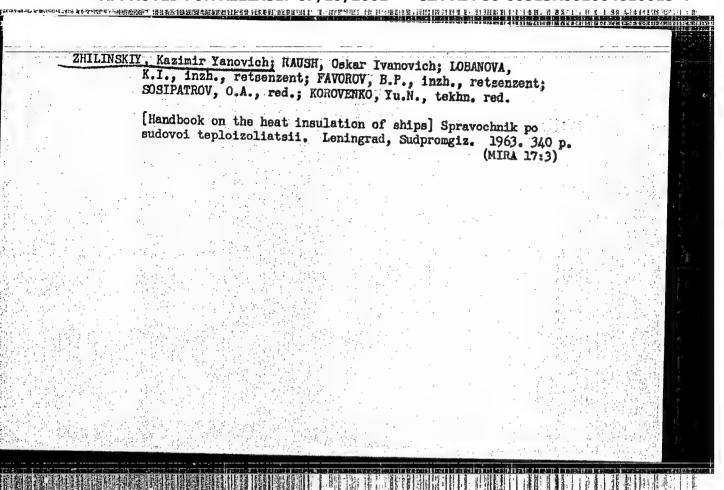1966, 102 p. diagr., biblio. 2,000 copies printed.

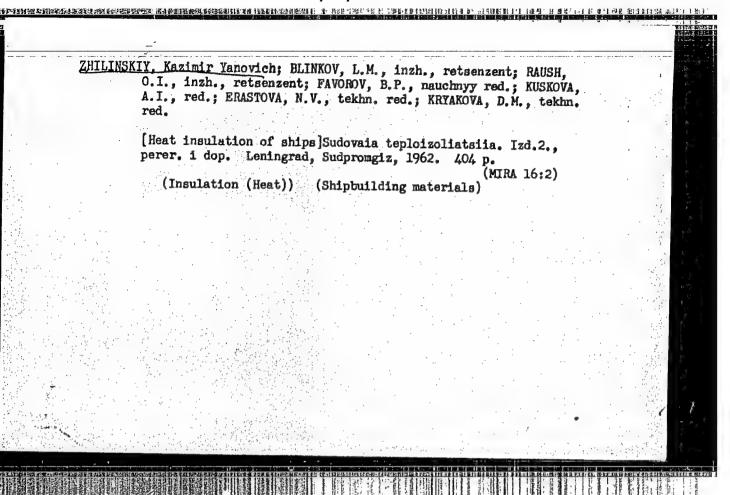TOPIC TAGS: refrigerator ship, heat insulation, shipbuilding engineering

PURPOSE AND COVERAGE: This booklet is intended for engineering and
technical workers in the shipbuilding industry working on the in-
sulation of refrigerated holds of foreign- and Soviet-built ships.
It is also useful for students of shipbuilding institutes specializ-
ing in the field of insulation. Modern methods of designing insu-
lation for foreign- and Soviet-built refrigeration ships are pre-
sented. The basic features of each method and the final results of
computations are given. In addition, the author has modified
existing methods in order to increase the range of their applica-
bility and to simplify engineering designs. There are 13 references,
10 of which are Soviet.
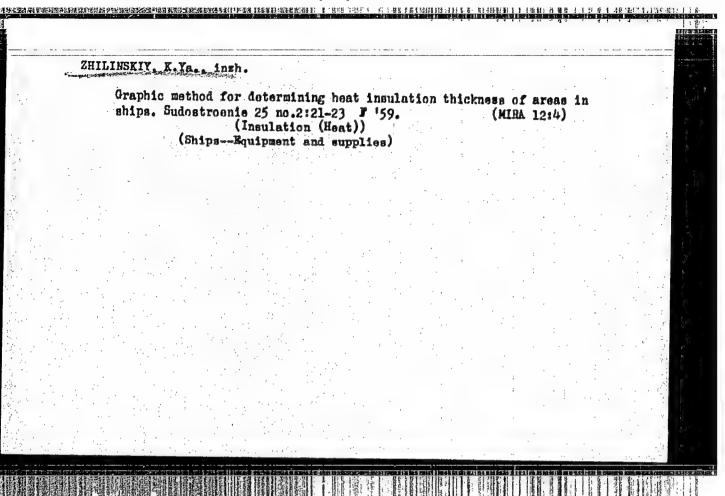
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                              UDC: 629.12.002.29-662.09

ACC NR: AM6029203

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Ch. 1. Methods of calculating the heat insulation for refrigerated
compartments -- 7
Ch. 2. Modified methods for calculating heat insulation -- 77

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SUB CODE: 13/ SUBM DATE: 17Jan66/ ORIG REF: 010/ OTH REF: 003/

Card 2/2

ZHILINSKIY, Kazimir Yanovich; RAUSH, Oskar Ivanovich; LOBANOVA,
K.I., inzh., retsenzent; FAVOROV, B.P., inzh., retsenzent;
SOSIPATROV, O.A., red.; KOROVENKO, Yu.N., tekhn. red.

[Handbook on the heat insulation of ships] Spravochnik po
sudovoi teploizoliatsii. Leningrad, Sudpromgiz. 1963. 340 p.
(MIRA 17:3)

ZHILINSKIY, Kazimir Yanovich; BLINKOV, L.M., inzh., retsenzent; RAUSH,
O.I., inzh., retsenzent; FAVOROV, B.P., nauchnyy red.; KUSKOVA,
A.I., red.; ERASTOVA, N.V., tekhn. red.; KRYAKOVA, D.M., tekhn.
red.

[Heat insulation of ships]Sudovaia teploizoliatsiia. Izd.2.,
perer. i dop. Leningrad, Sudpromgiz, 1962. 404 p.
(MIRA 16:2)

(Insulation (Heat))   (Shipbuilding materials)

ZHILINSKIY, K.Ya., inzh.

Graphic method for determining heat insulation thickness of areas in
ships. Sudostroenie 25 no.2:21-23 F '59.   (MIRA 12:4)
                        (Insulation (Heat))
            (Ships--Equipment and supplies)

ZHILINSKIY, K.Ya., inzhener.

Simplified method of determining the heat conductivity coefficient
of the insulation of refrigerator holds. Sudostroenie 23 no.2:57-59
F '57.   (MLRA 10:5)
                        (Refrigeration on ships)
                        (Insulation (Heat))

ZHILINSKIY, Kazimir Yanovich; RAUSH, O.I., otv. red.; FOMICHEV, A.G., red.;
KONTOROVICH, A.I.; tekhn.red.

[Heat insulation of ship hulls] Teploizoliatsiia korpusa sudna.
Leningrad, Gos. soiuznoe izd-vo sudostroit. promyshl., 1958.
230 p.   (MIRA 12:1)
    (Hulls (Naval architecture)) (Insulation (Heat))

ZHILINSKIY, I.B.
P.3

PHASE I BOOK EXPLOITATION   SOV/3685

Moscow. Institut khimicheskogo mashinostroyeniya

Teplovyye protsessy v promyshlennosti (Thermal Processes in Industry)
Moscow, 1958. 145 p. (Series: Its: Trudy, t. 16, No. 2) 1,500
copies printed.

Resp. Ed.: S.N. Shorin, Professor; Tech. Ed.: B.K. Shorin; Edi-
torial Board: S.I. Shchepkin, Professor, Honored Worker in
Science and Technology (Resp. Ed.); A.M. Lastovtsev, Professor;
N.M. Karavayev, Professor; D.T. Kokorev, Docent; L.V. Petrokas,
Professor; P.M. Reshchikov, Docent; S.N Sokolov, Professor;
S.I. Sokolov, Professor; A.M. Khodzhayev, Docent; S.N. Shorin,
Professor; N.I. Basov, Candidate of Technical Sciences (Scientific
Secretary).

PURPOSE: This collection of articles is intended for physicists,
chemical and industrial engineers, and technicians interested
in problems of thermodynamics and fuel combustion in various
industries.

COVERAGE: The book contains 11 articles which give the results of
Card 1/3

Thermal Processes in Industry   SOV/3685

    research on heat convection, combustion dynamics, fuel economy,
    and the mechanization of heating processes. No personalities
    are mentioned. References accompany some of the articles.

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Thermal Processes in Industry

SOV/3685

AVAILABLE: Library of Congress

Card 3/3

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5-26-60

ZHILINSKIY, O.V.; KOZLOV, V.A.; MIKHAL'KEVICH, I.V.; PETROV, O.D.

Hydraulic system of a broaching machine with two-position safety
valves. Stan.i instr. 32 no.6:36-37 Je '61.   (MIRA 14:6)
                    (Broaching machines—Hydraulic driving)

ZHILINSKIY, O.V., inzh.; KOVZEL', N.I., inzh.; LEMESHONOK, V.D., inzh.;
PETROV, O.D., inzh.

Automatic broaching machine for machining bimetallic bushings.
Vest.mashinostr. 43 no.8:57-60 Ag '63.   (MIRA 16:9)
                              (Broaching machines)

ZHILINSKIY, Petr Pavlovich; RASTOVA, G.V., vedushchiy red.; FEDOTOVA, I.G., tekhn. red.

[Pipe-laying machinery; operation and repair] Truboukladchiki; eksplua-tatsiia i remont. Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 129 p.   (MIRA 14:7)
        (Pipelines--Equipment and supplies)

ZHILINSKIY, Petr Pavlovich; KRAYZEL'MAN, S.M., red.; POLYANSKIY, O.I., vedushchiy red.; TROFIMOV, A.V., tekhn.red.

[Mobile pipe-cleaning machines] Peredvizhnye truboochistnye mashiny. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1960. 82 p. (MIRA 14:3)
(Pipelines--Cleaning)

ZHILINSKIY, T.

Variability of the submicroscopic structure and mechanical
properties of polycaprolactam fibers.,   Izv.vys.ucheb.zav.;
tekh.tekst.prom.   no.1:17-31   '60.   (MIRA 13:6)

1. Lodzinskiy politekhnicheskiy institut.
                (Textile fibers, Synthetic)

ZHILINSKIY, V.A., kandidat sel'skokhozyaystvennykh nauk.

Treatment of experimental data obtained from studying the absorption of water by soils. Izv. TSKhA no.2:131-140 '56.

(MLRA 9:12)

(Soil absorption)

USSR / Soil Science Tilling. Melioration. Erosion.   J

Abs Jour   : Ref Zhur - Biologiya, No 11, 1958, No. 48689

Author   : Zhilinskiy, V. A.
Inst   : Timiryazev Institute of Agriculture
Title   : Processing of Experimental Data on the Observa-
              tions of Subsoil Water Absorption

Orig Pub   : Izv. Timiryazevsk. s.-kh. akad., 1956, No 2,
              131-140

Abstract   : This article examines a mathematical method of
              processing the primary finding in data analysis
              on the water absorption by the subsoil. The
              processing of these data is reduced to the
              derivation of the integral values of absorption
              expressed by the dimensions of the layer of the
              absorbed water, and to the derivation of the
              mean values of absorption called coefficients

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USSR / Soil Science Tilling. Melioration. Erosion.   J

Abs Jour   : Ref Zhur - Biologiya, No 11, 1958, No. 48689

        (or rates) of absorption and expressed by the
        ratio of the layer of the absorbed water to a
        unit of time. The article also critically
        examines the methods of computing the intensity
        of water absorption by the subsoil, developed
        by A. N. Kostyakov and A. A. Cherkasov. --
        S. A. Nikitin

Card 2/2

56

USSR/Soil Science - Physical and Chemical Properties of Soil.   J.

Abs Jour   : Ref Zhur - Biol., No 15, 1958, 67895

Author   : Zhilinskiy, V.A.

Inst   : Moscow Agricultural Academy imeni K.A. Timiryazev.

Title   : Correctives to Formulae for Determining Coefficients of
               Absorption into Soil Foundations.

Orig Pub   : Dokl. Mosk. s.-kh. akad. im. K.A. Timiryazeva, 1957, No
               29, 368-376.

Abstract   : The article contains the author's criticial evaluation
               and proposals on the absorption coefficients worked out
q   by A.N. Kostyakov and A.A. Cherkasov. The following
               coefficients of absorption in soils have been selected:
               1) the integral absorption coefficient for the period
               elapsed since the beginning of absorption, 2) the average
               absorption coefficient for the same period,
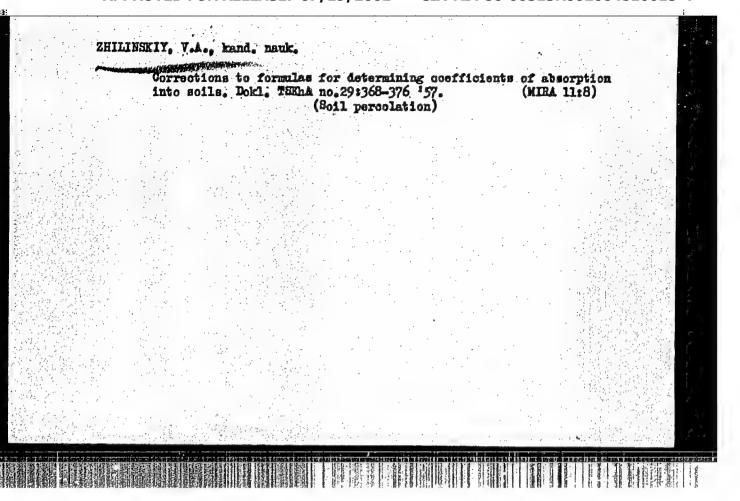
Card 1/2

USSR/Soil Science - Physical and Chemical Properties of Soils.   J.

Abs Jour   : Ref Zhur - Biol., N⁰ 15, 1958, 67895

3) the instantaneous absorption coefficient for the moment corresponding to the end of the period which has elapsed since the beginning of the absorption. A formula is proposed for determining the average absorption coefficient for any time interval. -- P.V. Shranko

Card 2/2

- 16 -

ZHILINSKIY, V.A., kand. nauk.

Corrections to formulas for determining coefficients of absorption
into soils. Dokl. TSKhA no.29:368-376 '57.   (MIRA 11:8)
                        (Soil percolation)

BELYAEV, Viktor Vasil'yevich, kandidat tekhnicheskikh nauk; LEBEDEV,
    Boris Mikhaylovich, kandidat tekhnicheskikh nauk;STRUKOV, N.I.,
    kandidat tekhnicheskikh nauk, retsenzent; ZHILINSKIY, V.A.,
    kandidat tekhnicheskikh nauk,redaktor;YEGORKINA, L.I.,redaktor
    izdatel'stva; UVAROVA, A.F.,tekhnicheskiy redaktor

[Sprinkling machines; construction, calculation, operation and
testing] Dozhdeval'nye mashiny; konstruktsii, raschet, ekspluatatsiia
i ispytaniia. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit.
lit-ry, 1957. 231 p.   (MLRA 10:5)
            (Sprinkler irrigation)

ZHILINSKIY, V.A., kandidat sel'skokhozyaystvennykh nauk.

Determining filtration losses of water from canals. Izv.TSKhA
no.1:128-139 '57. (MIRA 10:7)
(Irrigation canals and flumes)

AUTHOR: Zhilinskiy, V. A.

TITLE: On the Determination of the Water Losses Due to Seepage in
           Periodically Operating Irrigation Canals (K voprosu ob opre-
           delenii poter' vody na fil'tratsiyu iz orositel'nykh kanalov
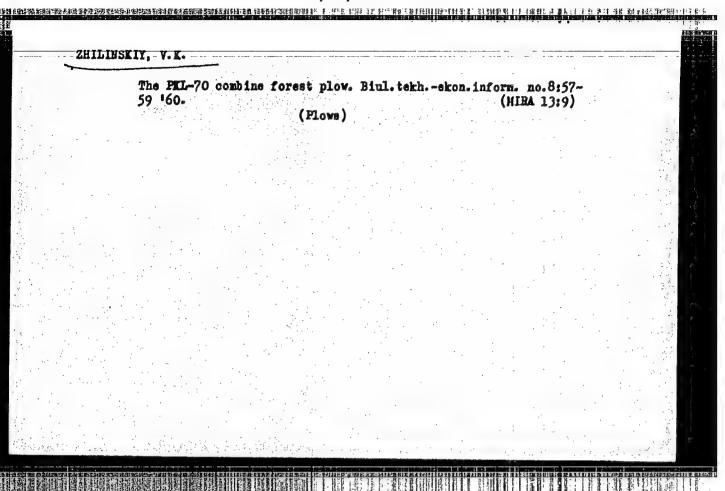   periodicheskogo deystviya)

ABSTRACT: Bibliographic entry

             1. Irrigation systems--Performance   2. Water--Penetration

Card 1/1

ZHILINSKIY, V.K.

The PKL-70 combine forest plov. Biul.tekh.-ekon.inform. no.8:57-59 '60.   (MIRA 13:9)

(Plows)

ZHILINSKIY, Ye.S.; EIDEL'SHTEYN,S.I.

Use of penicillin and oil   aerosols in treating otolaryngological
disease. Vest. oto-rin. 17 no.5:62-64 S-O '55.   (MIRA 9:2)

1. Is oto-laringologicheskogo otdeleniya polikliniki imeni
F.E. Dzerzhinskogo.
        (OTORHINOLARYNGOLOGY,
            otorhinolaryngol. dis., ther., penicilin in oil, aerosol
            admin.)
        (PENICILLIN, administration,
            aerosol, in otorhinolaryngol. dis., in oil)
        (AEROSOLS, therapeutic use,
            penicillin in oil in otorhinolaryngol. dis.)

EYDEL'SHTEYN, S.I.; ZHILINSKIY, Ye.S.; GOL'TSER, S.M.

Warm moist antibiotic aerosols. Zhur.ush., nos. i gorl. bol.
23. no.3:62-66 My-Je'63.   (MIRA 16:7)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo instituta anti-
biotikov, polikliniki imeni F.E. Dzerzhinskogo i TSentral'noy
polikliniki Ministerstva zdravookhraneniya RSFSR.
          (ANTIBIOTICS)   (AEROSOL THERAPY)

EYDEL'SHTEYN, S.I.; ZHILINSKIY, Ye.S.; GOL'TSER, S.M.

Use of aerosols of antibiotics from the tetracycline series in
catarrhal and suppurative diseases of the upper respiratory tract.
Antibiotiki 7 no.1:68-71 Ja '62.   (MIRA 15:2)

1. Poliklinika imeni F.E. Dzerzhinskogo (glavnyy vrach I.G.Karakozov),
TSentral'naya poliklinika Ministerstva zdravookhraneniya RSFSR (glavnyy
vrach N.I.Yermolov).
              (TETRACYCLINE) (AEROSOL THERAPY)   (RESPIRATORY ORGANS—DISEASES)

ACC NR: AP6005050   SOURCE CODE: UR/0297/65/010/010/0945/0948

AUTHORS: Eydel'shteyn, S. I.; Agronik, S. Kh.; Zhilinskiy, Ye. S.

ORG: Department for Ear, Throat, and Nose Illness/ headed by N. V. Gospodinov/, Poly-
clinic im. F. E. Dzerzhinskiy, Moscow (Otdeleniye bolezney ukha, gorla, nosa
polikliniki)

TITLE: Erythromycin aerosol

SOURCE: Antibiotiki, v. 10, no. 10, 1965, 945-948

TOPIC TAGS: medical research, erythromycin, aerosol

ABSTRACT: Erythromycin has been put into aerosol form for the treatment of diseases
caused by staphylococci, particularly upper respiratory diseases. Five hundred
patients were examined for the presence of microflora in the upper respiratory
tract, and sensitivity of staphylococci to erythromycin was established in 373 cases.
Erythromycin aerosol was prepared by dissolving 0.1--0.2 grams (100 000--200 000
units) of powdered erythromycin in 1 ml of 1% spirit solution of citral; this
solution was added to 100 ml of 20% glucose heated to 50°. The solution was inhaled
at 38--42° for 10--15 minutes daily. Erythromycin ascorbinate (ascorbic salts of
erythromycin, an original water-soluble preparation of erythromycin obtained at VNIIA)

Card 1/2   UDC: 615.779.931-014.071

L 37144-66

ACC NR: AP6005050   O

was adapted for aerosol use. Of the cases treated, cures were observed in 90% of
patients with acute catarrh, 81% of patients with chronic pharyngolaryngotracheitis,
90% of patients with chronic hypertrophic rhinitis, and 84% of patients with chronic
catarrhal sinusitis. Microbiological data also support the effectiveness of
erythromycin aerosols. The following side effects were reported in some cases:
bitter taste, feeling of burning in chest, dryness in throat, and dry cough, which
can be reduced or forestalled by addition of an antihistamine mixture. Sensitivity
of microflora to antiobiotic should determine the use of erythromycin aerosols.
Orig. art. has: 2 tables.

SUB CODE: 06/   SUBM DATE: 20Mar64/   ORIG REF: 005/   OTH REF: 009

Card 2/2 af

EYDEL'SHTEYN, S.I., kand.med.nauk; ZHILINSKIY, Ye.S.

Susceptibility to antibiotics of the microflora of the upper
respiratory tract in otorhinolaryngological patients. Zhur.
ush., nos. i gorl.bol. 22 no.1:80-81 Ja-F '62.   (MIRA 15:5)

1. Iz Vsesoyuznogo nauchno-issledovatel'skogo instituta antibiotikov
i iz polikliniki imeni Dzerzhinskogo.
                 (RESPIRATORY ORGANS--MICROBIOLOGY)
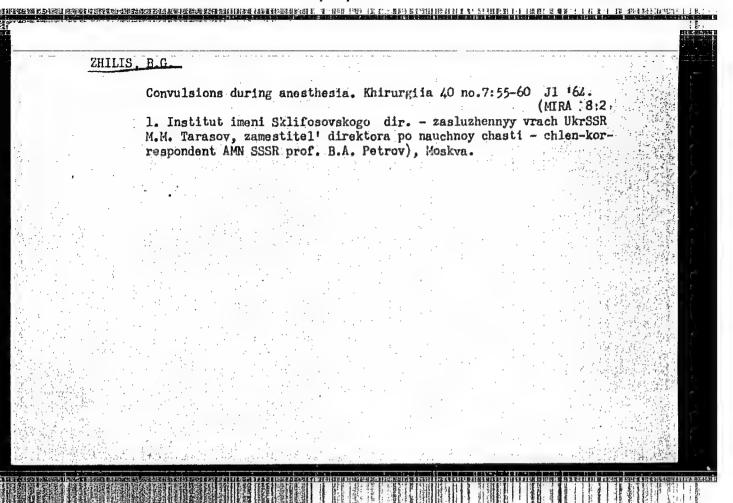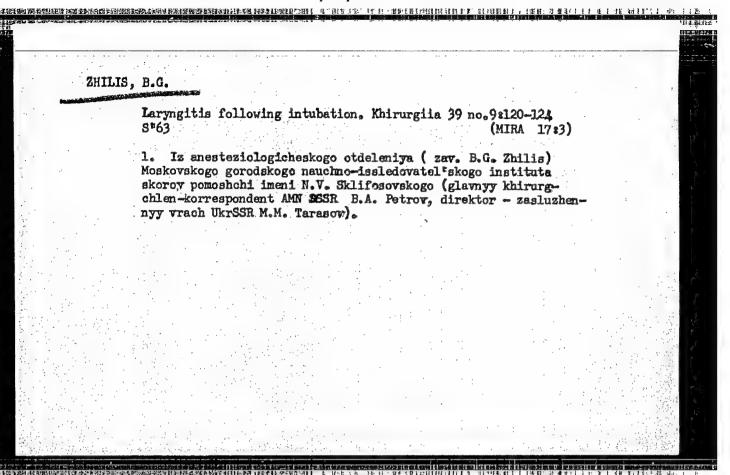   (BACTERIA--EFFECT OF DRUGS ON)   (ANTIBIOTICS)

ZHILINSKIY, Yu.M., starshiy prepodavatel'

Calculating permanent radiation units for greenhouses. Izv.
TSKHA no.5:161-172 '62.   (MIRA 16:7)

(Greenhouses--Lighting)

ZHILIS, B.G.

Convulsions during anesthesia. Khirurgiia 40 no.7:55-60 Jl '64.

(MIRA 18:2)

1. Institut imeni Sklifosovskogo dir. - zasluzhennyy vrach UkrSSR
M.M. Tarasov, zamestitel' direktora po nauchnoy chasti - chlen-kor-
respondent AMN SSSR prof. B.A. Petrov), Moskva.

ZHILIS, B.G.

Laryngitis following intubation. Khirurgiia 39 no.9:120-124
S'63   (MIRA 17:3)

1. Iz anesteziologicheskogo otdeleniya (zav. B.G. Zhilis)
Moskovskogo gorodskogo nauchno-issledovatel'skogo instituta
skoroy pomoshchi imeni N.V. Sklifosovskogo (glavnyy khirurg-
chlen-korrespondent AMN SSSR B.A. Petrov, direktor - zasluzhen-
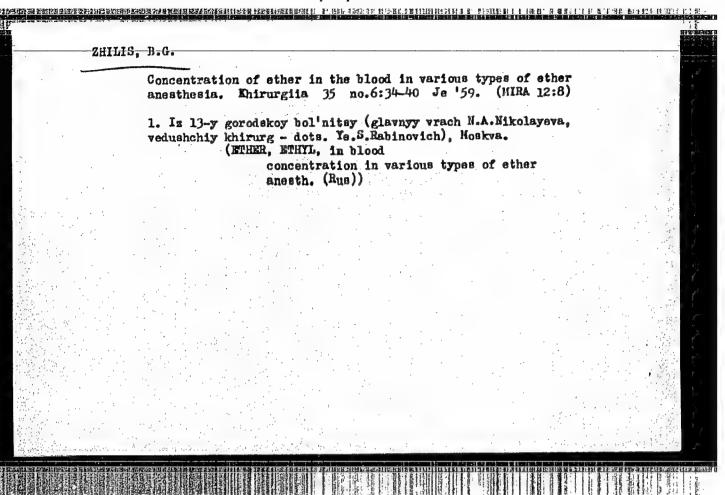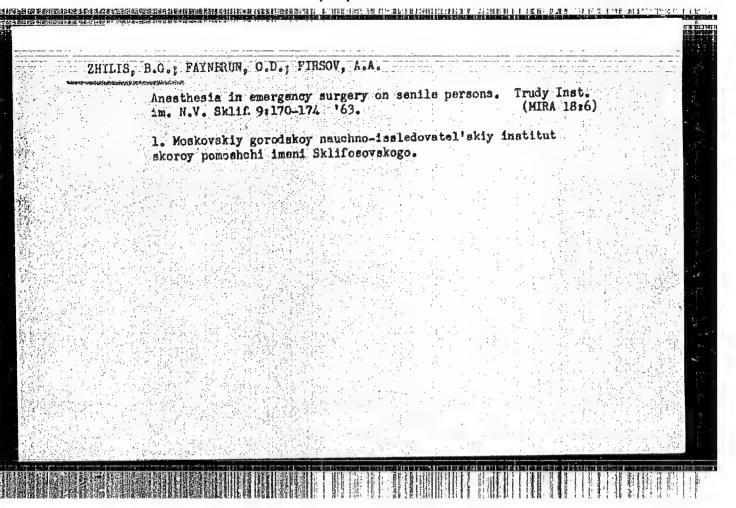nyy vrach UkrSSR M.M. Tarasov).

ZHILIS, B. G.

Combined nitrous oxide anesthesia. Khirurgiia no.4:49-53 '62.
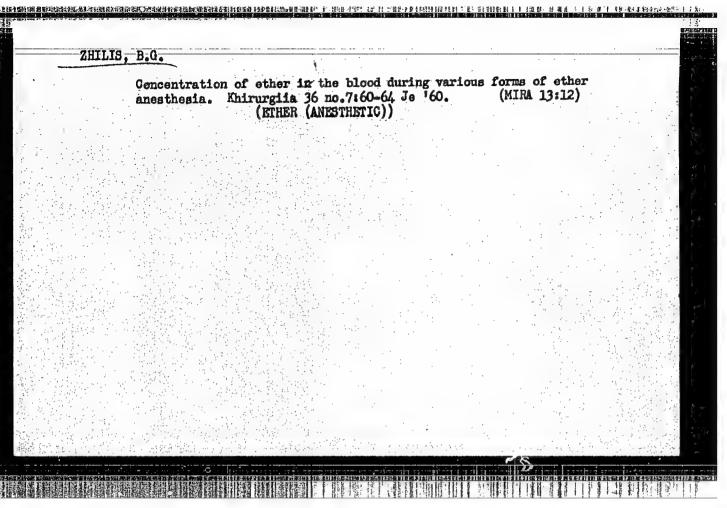(MIRA 15:6)

1. Iz Moskovskogo gorodskogo nauchno-issledovatel'skogo instituta
skoroy pomoshchi imeni N. V. Sklifosovskogo (dir. - zasluzhennyy
vrach UkrSSR M. M. Tarasov, glavnyy khirurg - chlen-korrespondent
AMN SSSR prof. B. A. Petrov)

(NITROUS OXIDE)

ZHILIS, B.G.

Concentration of ether in the blood in various types of ether
anesthesia. Khirurgiia 35 no.6:34-40 Je '59. (MIRA 12:8)

1. Iz 13-y gorodskoy bol'nitsy (glavnyy vrach N.A.Nikolayeva,
vedushchiy khirurg - dots. Ye.S.Rabinovich), Moskva.
(ETHER, ETHYL, in blood
concentration in various types of ether
anesth. (Rus))

ZHILIS, B.G.; FAYNRUN, O.D.; FIRSOV, A.A.

Anesthesia in emergency surgery on senile persons.   Trudy Inst.
im. N.V. Sklif. 9:170-174 '63.   (MIRA 18:6)

1. Moskovskiy gorodskoy nauchno-issledovatel'skiy institut
skoroy pomoshchi imeni Sklifosovskogo.

LEBEDEV, V.V.; ZHILIS, B.G.; CHETVERUSHKIN, B.V.
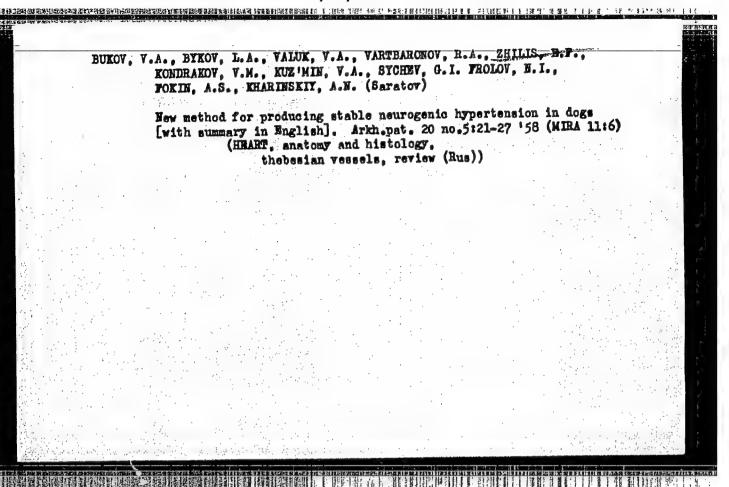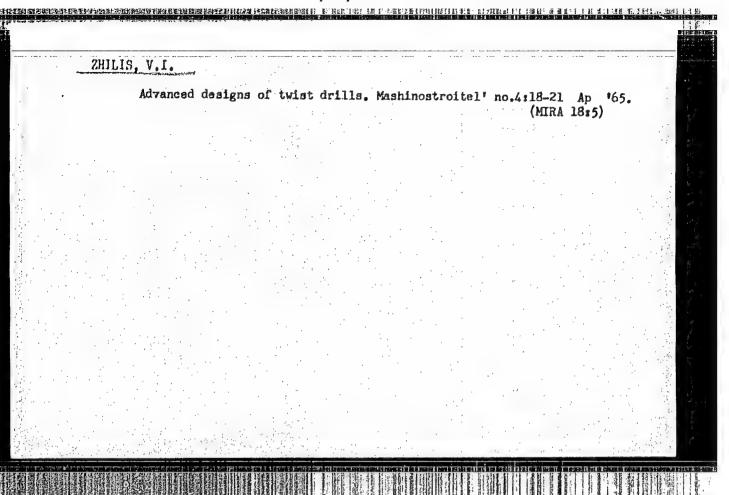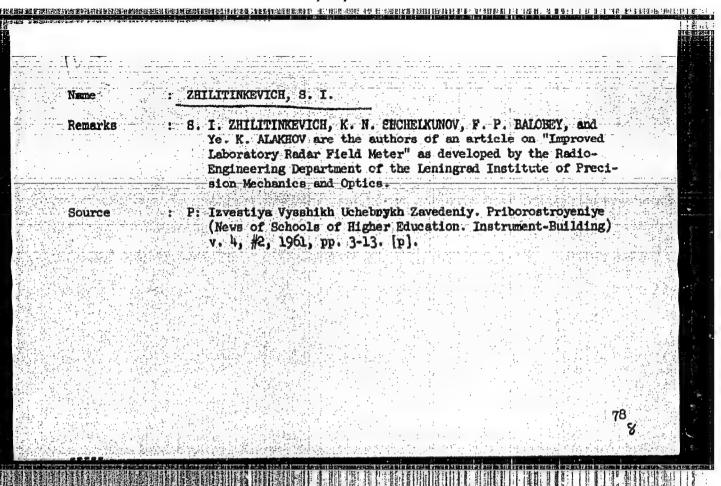
Anesthesia in surgery on craniocerebral traumas. Trudy Inst.
im. N.V. Sklif. 9:222-225 '63.   (MIRA 18:6)

1. Moskovskiy gorodskoy nauchno-issledovatel'skiy institut
skoroy pomoshchi imeni Sklifosovskogo.

ZHILIS, B.G.

Concentration of ether in the blood during various forms of ether
anesthesia. Khirurgiia 36 no.7:60-64 Je '60.   (MIRA 13:12)
                (ETHER (ANESTHETIC))

BUKOV, V.A., BYKOV, L.A., VALUK, V.A., VARTBARONOV, R.A., ZHILIS, B.P.,
KONDRAKOV, V.M., KUZ'MIN, V.A., SYCHEV, G.I. FROLOV, H.I.,
FOKIN, A.S., KHARINSKIY, A.N. (Saratov)

New method for producing stable neurogenic hypertension in dogs
[with summary in English]. Arkh.pat. 20 no.5:21-27 '58 (MIRA 11:6)
        (HEART, anatomy and histology,
            thebesian vessels, review (Rus))

ZHILIS, V.I.

Advanced designs of twist drills. Mashinostroitel' no.4:18-21   Ap '65.
(MIRA 18:5)

Name   : ZHILITINKEVICH, S. I.

Remarks   : S. I. ZHILITINKEVICH, K. N. SHCHELKUNOV, F. P. BALOBEY, and
               Ye. K. ALAKHOV are the authors of an article on "Improved
               Laboratory Radar Field Meter" as developed by the Radio-
               Engineering Department of the Leningrad Institute of Preci-
               sion Mechanics and Optics.

Source   : P: Izvestiya Vysshikh Uchebnykh Zavedeniy. Priborostroyeniye
               (News of Schools of Higher Education. Instrument-Building)
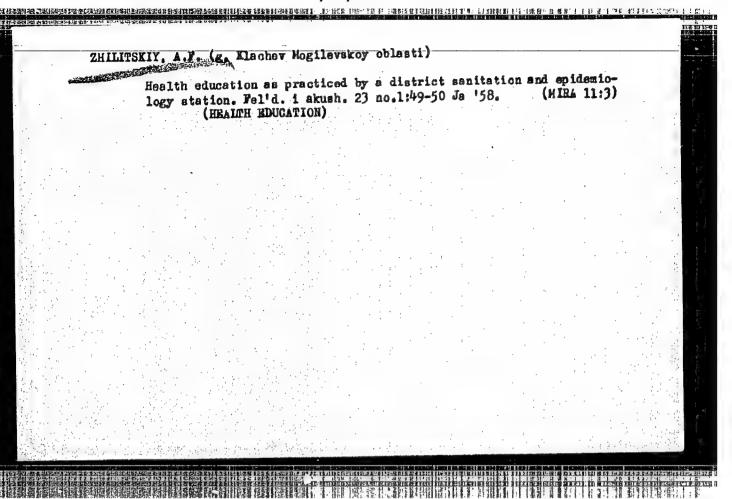   v. 4, #2, 1961, pp. 3-13. [p].

78
8

ZHILITSKAYA, G.A., kandidat meditsinskikh nauk.

Use of Sol-Iletsk mud in inflammatory diseases of the female genitalia outside of the spa. Akush.i gin. no.2:78-79 Mr-Ap '54. (MLRA 7:6)

1. Iz akushersko-ginekologicheskoy kliniki (zaveduyushchiy - professor Ya.N.Polonskiy) Chkalovskogo meditsinskogo instituta.
      (Genitourinary organs--Diseases) (Sol-Iletsk--Earths, Medical
            and surgical uses of)

ZHILITSKIY, A.F. (g. Klachev Mogilevskoy oblasti)

Health education as practiced by a district sanitation and epidemio-
logy station. Fel'd. i akush. 23 no.1:49-50 Ja '58.   (MIRA 11:3)
(HEALTH EDUCATION)

ZHILITSKII, IA. Z.

Agricultural Machinery

Mechanizing soil cultivation in orchards. Sad i og., No. 8, 1952

Monthly List of Russian Accessions, Library of Congress, October 1952. Unclassified.

1. ZHILITSKIY, YA. Z.

2. USSR (600)

7. Capacity of apple tree roots for sprouting when injured.
   Sad. 1 og. No. 9. 1952.

9. Monthly List of Russian Accessions, Library of Congress. __January__ 1953. Unclassified.
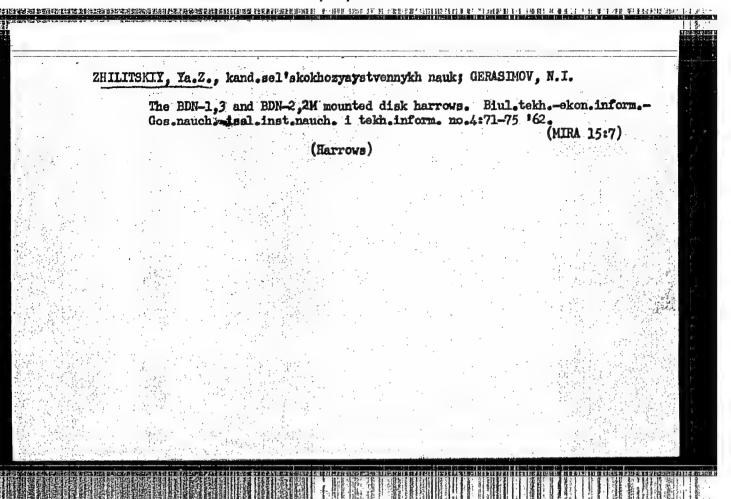
ZHILITSKIY, Ya. Z.

"Development of the Root System of Appletrees in Connection With the Working of the Soil in Orchards." Cand Agr Sci, Sci Res Inst of Fruit Growing, Michurinsk, 1953. (RZhBiol, No 1, Sep 54)
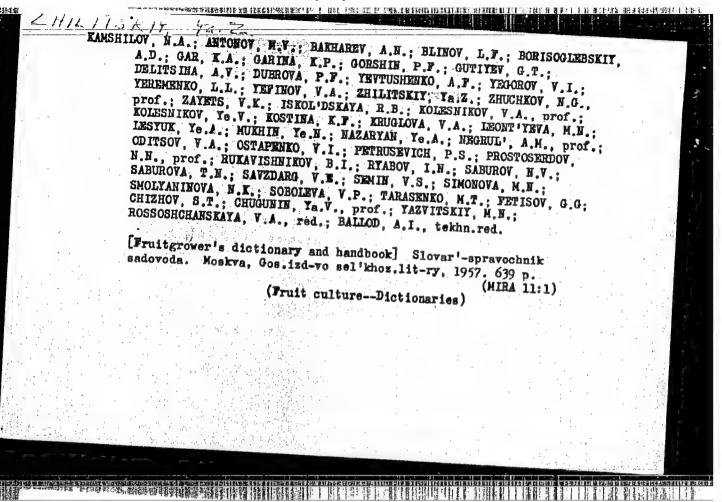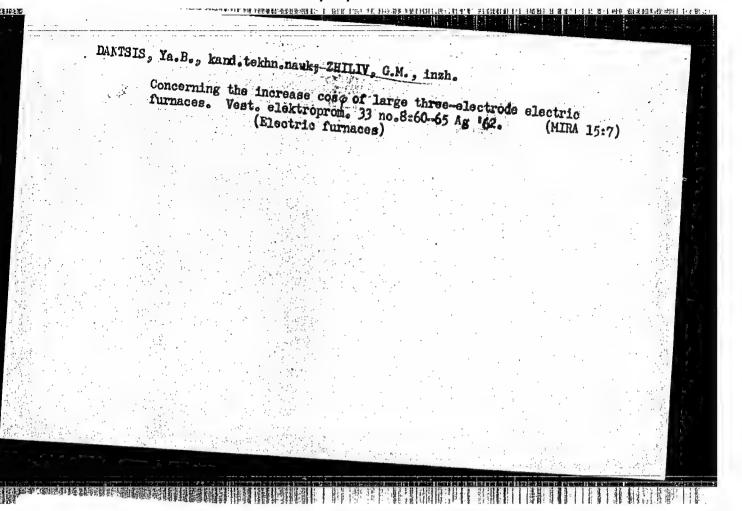
SO: Sum 432, 29 Mar 55

MOISEYEV, Nikolay Fedorovich; KUZNETSOV, Mikhail Mikhaylovich; ZHILITSKIY, Ya.Z., retsenzent; TOPIL'SKIY, F.A., inzhener, redaktor; YEGORKINA, L.I., redaktor izdatel'stva; UVAROVA, A.F., tekhnicheskiy redaktor

[Machines and apparatus for the mechanization of work in orchards and vineyards] Mashiny i orudiia dlia mekhanizatsii rabot v sadakh i vinogradnikakh. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1957. 352 p.   (MIRA 10:9)
        (Agricultural machinery)

ZHILITSKIY, Ya.Z., kand.sel'skokhozyaystvennykh nauk; GERASIMOV, N.I.

The BDN-1,3 and BDN-2,2M mounted disk harrows. Biul.tekh.-ekon.inform.-
Gos.nauch.-issl.inst.nauch. i tekh.inform. no.4:71-75 '62.

(MIRA 15:7)

(Harrows)

ZHILITSKIY, Ya.Z.; LOSEV, N.P.

The PPN-40 mounted subsoil plough. Biul.tekh.-ekon.inform.Gos.-
nauch.-issl.inst.nauch.i tekh.inform. no.3:53-54 '62.

(Plows)   (MIRA 15:5)

ZHILITSKIY, Ya. Z.

KAMSHILOV, N.A.; ANTONOV, N.V.; BAKHAREV, A.N.; BLINOV, L.F.; BORISOGLEBSKIY, A.D.; GAR, K.A.; GARINA, K.P.; GORSHIN, P.F.; GUTIYEV, G.T.; DELITSINA, A.V.; DUBROVA, P.F.; YEVTUSHENKO, A.F.; YEGOROV, V.I.; YEREMENKO, L.L.; YEFIMOV, V.A.; ZHILITSKIY, Ya.Z.; ZHUCHKOV, N.G., prof.; ZAYETS, V.K.; ISKOL'DSKAYA, R.B.; KOLESNIKOV, V.A., prof.; KOLESNIKOV, Ye.V.; KOSTINA, K.F.; KRUGLOVA, V.A.; LEONT'YEVA, M.N.; LESYUK, Ye.A.; MUKHIN, Ye.N.; NAZARYAN, Ye.A.; NEGRUL', A.M., prof.; ODITSOV, V.A.; OSTAPENKO, V.I.; PETRUSEVICH, P.S.; PROSTOSERDOV, N.N., prof.; RUKAVISHNIKOV, B.I.; RYABOV, I.N.; SABUROV, N.V.; SABUROVA, T.N.; SAVZDARG, V.E.; SEMIN, V.S.; SIMONOVA, M.N.; SMOLYANINOVA, N.K.; SOBOLEVA, V.P.; TARASENKO, M.T.; FETISOV, G.G.; CHIZHOV, S.T.; CHUGUNIN, Ya.V., prof.; YAZVITSKIY, M.N.; ROSSOSHCHANSKAYA, V.A., red.; BALLOD, A.I., tekhn.red.

[Fruitgrower's dictionary and handbook] Slovar'-spravochnik sadovoda. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1957. 639 p.

(MIRA 11:1)

(Fruit culture--Dictionaries)

DANTSIS, Ya.B., kand.tekhn.nauk; ZHILIV, G.M., inzh.

Concerning the increase cos φ of large three-electrode electric
furnaces. Vest. elektroprom. 33 no.8:60-65 Ag '62.   (MIRA 15:7)
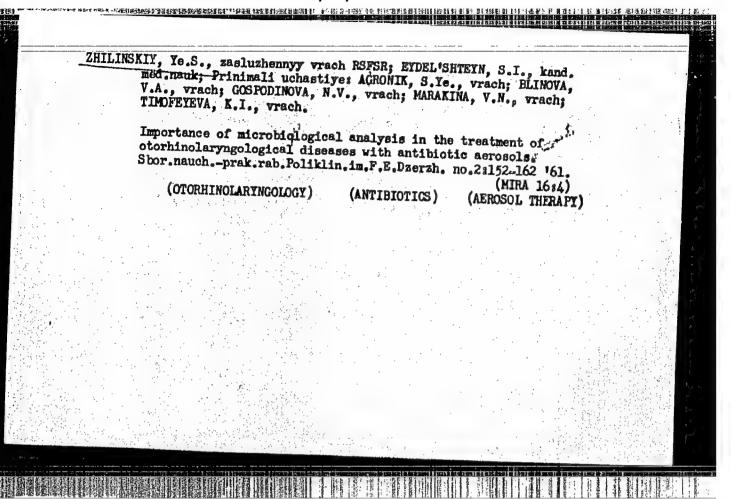   (Electric furnaces)

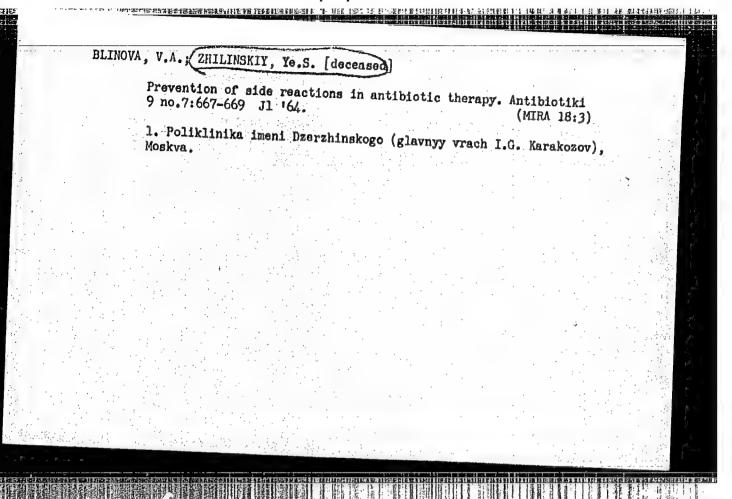EYDEL'SHTEYN, S.I.; AGRONIK, S.Kh.; ZHILINSKIY, Ye.S. [deceased]

Erythromycin aerosol. Antibiotiki 10 no. 10:945-948 O '65.

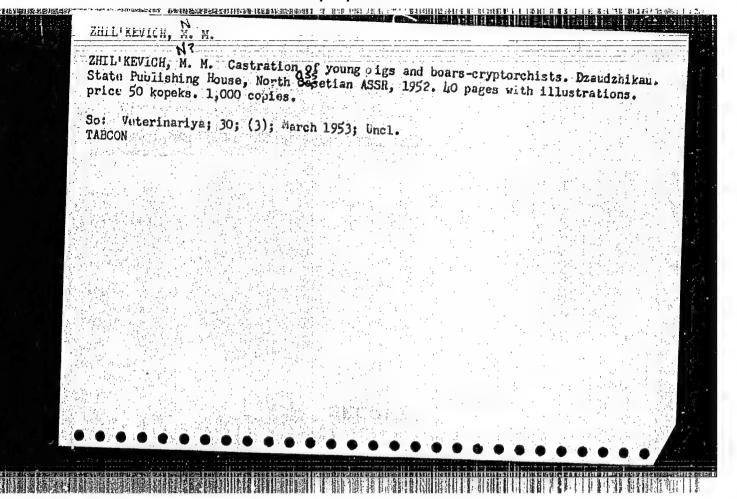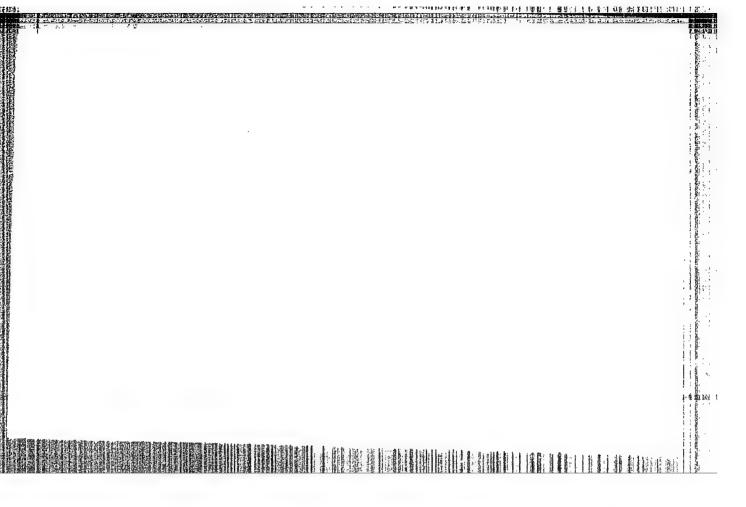1. Otdeleniye bolezney ukha, gorla, nosa (zav. - N.V. Gospodinova)
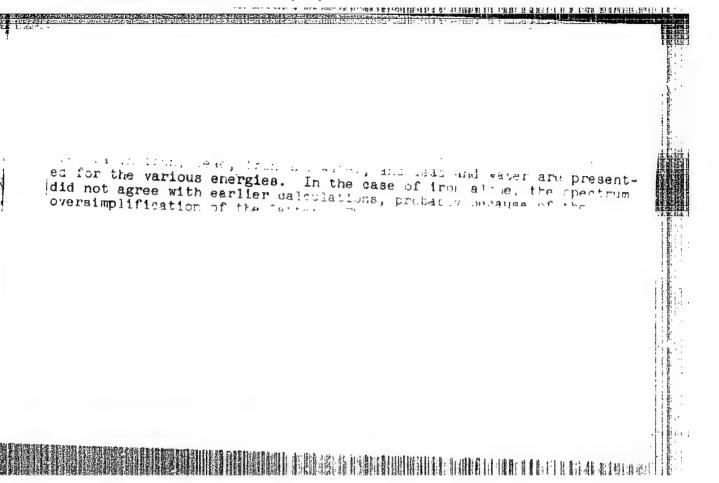polikliniki imeni F.E. Dzerzhinskogo, Moskva. Submitted March
20, 1964.

(MIRA 18:12)

ZHILINSKIY, Ye.S., zasluzhennyy vrach RSFSR; EYDEL'SHTEYN, S.I., kand. med.nauk; Prinimali uchastiye: AGRONIK, S.Ye., vrach; BLINOVA, V.A., vrach; GOSPODINOVA, N.V., vrach; MARAKINA, V.N., vrach; TIMOFEYEVA, K.I., vrach.

Importance of microbiological analysis in the treatment of otorhinolaryngological diseases with antibiotic aerosols.
Sbor.nauch.-prak.rab.Poliklin.im.F.E.Dzerzh. no.2:152-162 '61.

(MIRA 16:4)

(OTORHINOLARYNGOLOGY)   (ANTIBIOTICS)   (AEROSOL THERAPY)

BLINOVA, V.A.; ZHILINSKIY, Ye.S. [deceased]

Prevention of side reactions in antibiotic therapy. Antibiotiki
9 no.7:667-669 Jl '64.
(MIRA 18:3)

1. Poliklinika imeni Dzerzhinskogo (glavnyy vrach I.G. Karakozov),
Moskva.

ZHIL'KEVICH, M. M.

ZHIL'KEVICH, M. M. Castration of young pigs and boars-cryptorchists. Dzaudzhikau.
State Publishing House, North Ossetian ASSR, 1952. 40 pages with illustrations.
price 50 kopeks. 1,000 copies.

So: Veterinariya; 30; (3); March 1953; Uncl.
TABCON

ec for the various energies. In the case of iron at:e, the spectrum did not agree with earlier calculations, probably because of the oversimplification of the latter.

ZHILKIN, inzhener.

Construction of a turbo-generator factory in conformity with the obligatory building regulations. Binl. stroi. tekh. 10 no.4:10-15 F '53.
(MLRA 6:12)

1. Stroytrest No. 43 Minmashstroya.

(Factories)

ZHILKIN, A., mashinist kombayna.

    Under difficult conditions. Mast.ugl. 2 no.4:14-15 Ap '53. (MLRA 6:5)

    1. Shakhta no.36.   (Coal-mining machinery)

REVTOV, V.D., inzh.; ZHILKIN, A.A., inzh.

Cold press forging of steel in foreign countries. Biul.
TSIICHM no.1:23-28 '61.

(Forging)

(MIRA 14:9)

KATSNEL'SON, S.M., ZHILKIN, A.N.

Electric Power

Economy of electric power, Tekst. prom. 12 no. 8, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952, Unclassified.

KATSNEL'SON, S. M.,   ZHILKIN, A. N.

Electric Power

Economy of electric power. Tekst. prom. 12 no. 8, 1952.

ZHILKIN, B.D., prof.

Experience in assessing lupine crops in forests. Sbor.nauch.
trud.BLTI no.10:92-111 '57.   (MIRA 11:12)
              (Forests and forestry) (Lupine)

USSR / Forestry. Forest Management.

Abs Jour: Ref Zhur-Biol., No 16, 1958, 72803.

K-4

Author : Zhilkin, B. D.
Inst   : Belorussian Forestry Institute.
Title   : Experiment of Evaluation of Lupine-Wood Farms.

Orig Pub: Sb. nauchn. tr. Belorussk. lesotekhn. in-t, 1957,
          vyp. 10, 92-111.

Abstract: On the basis of various literature and given Soviet
          and several foreign investigations, the value of
          lupine is reviewed for the enrichment of soil with
          humus and N. The experiment is cited of farms with
          lupine and wood in dry pine forests and in humid
          pine-forests on light soils of the Braslav and
          Negorel! Training-Experimental Leskhozes (BSSR).
          It is indicated that the seeds of perennial lupine
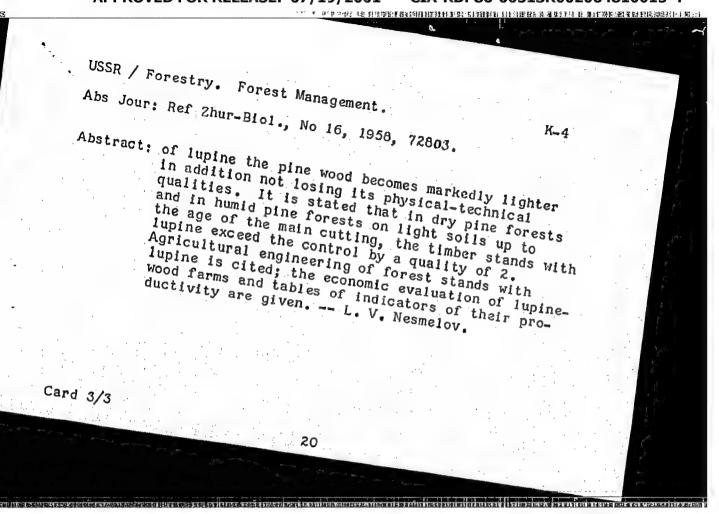   significantly improve the growth of pine and fir

Card 1/3

19

USSR / Forestry. Forest Management.   K-4

Abs Jour: Ref Zhur-Biol., No 16, 1958, 72803.

Abstract: both on poor and on the richest soils. Accompany-
ing cultivation of lupine for the first 7 years
retards the growth of fir in height, but from the
8-12th year of age, the fir makes a rapid change
in growth as regards height and subsequently main-
tains it stably. By weight analysis, it was estab-
lished that the harvest of organic mass of pine
in the humid pine forests on light sands with
single-row planting of lupine was exceeded by 35%
against the control, and with double row - by 14%;
in the dry pine forest it was correspondingly 11
and 38%. The content of total N in the root level
was 50% higher with cultivation of lupine than on
the control. The content of chlorophyll in the
pine needles on plots with lupine exceeded its
content on the controls by 84%. Under the influence

Card 2/3

USSR / Forestry. Forest Management.

Abs Jour: Ref Zhur-Biol., No 16, 1958, 72803.

K-4

Abstract: of lupine the pine wood becomes markedly lighter in addition not losing its physical-technical qualities. It is stated that in dry pine forests and in humid pine forests on light soils up to the age of the main cutting, the timber stands with lupine exceed the control by a quality of 2. Agricultural engineering of forest stands with lupine is cited; the economic evaluation of lupine-wood farms and tables of indicators of their pro-ductivity are given. -- L. V. Nesmelov.

Card 3/3

20

L 05041-67   EWT(m)/EWP(t)/ETI   IJP(c)   JD/WW/JG/JR/GD

ACC NR: AT6027925   SOURCE CODE: UR/0000/66/000/000/0104/0116

AUTHOR: Broder, D. L.; Zhilkin, A. S.; Zolotukhin, V. G.; Tarasko, M. Z.; Kutuzov, A. A.

ORG: None

TITLE: Fast neutron spectra in metal-water shielding

SOURCE: Voprosy fiziki zashchity reaktorov (Problems in physics of reactor shielding); sbornik statey, no. 2. Moscow, Atomizdat, 1966, 104-116

TOPIC TAGS: fast neutron, radiation shielding, neutron spectrum

ABSTRACT: The authors study the spectra of neutrons in the energy range above 1 mev from sources with energies of 3.35 and 14.9 mev in water and in water behind layers of iron and lead. A scintillation spectrometer with a stilbene crystal was used for the measurements. The sensitivity to γ-quanta was reduced by time division of irradiation. The reactions used for the neutron sources were $D(d,n)He^3$ and $T(d,n)He^4$ produced by using deutrons to bombard zirconium-tritium and zirconium-deuterium targets with a thickness of 18 mg/cm². For the measurements in water, the source was located in a paraffin block placed in direct contact to the water tank. The overall dimensions of the shielding were 710×710×600 mm. The scintillation spectrometer was combined with an FEU-13 photomultiplier and an AI-100-1 amplitude analyzer. The results show that

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L 05041-67

ACC NR: AT6027925

the neutron spectrum from a monochromatic source in lead and iron differs considerably from that in water. The iron and lead spectrum shows a stronger concentration of low-energy neutrons (<2 Mev). In the energy range from 2 Mev to the initial energy of the 3.35 Mev source and from 4-5 Mev to the initial energy of the 14.9 Mev source, the spectrum in water contains more neutrons than that in iron and lead. This form of spectrum explains the excellent shielding properties of iron and lead for fast neutrons as well as their poor characteristics for comparatively low-energy neutrons. These data also explain the excellent shielding properties of metal-water shielding through-out the entire energy spectrum. Spectra for neutrons in the energy region below the initial energy in water behind layers of lead and iron approach the shape of spectra in water at a thickness of greater than 20 cm. For thinner water layers, particularly be-low 2-3 Mev, the spectrum shows high concentrations of neutrons in comparison with the spectrum in water. In this transition region there is also a considerable difference from the spectrum in pure water for the energy range from 2 Mev to the initial energy. Orig. art. has: 10 figures, 1 table, 2 formulas.

SUB CODE:20,18/ SUBM DATE: 12Jan66/ ORIG REF: 004/ OTH REF: 004

Card 2/2

L 05046-67   EWT(m)/EWP(t)/ETI   IJP(c)   JD/JR/GD

ACC NR: AT6027924   SOURCE CODE: UR/0000/66/000/000/0088/0103

AUTHOR: Broder, D. L.; Zhilkin, A. S.; Kutuzov, A. A.; Suvorov, A. P.

ORG: None

TITLE: Spectra of fast neutrons in heavy homogeneous media

SOURCE: Voprosy fiziki zashchity reaktorov (Problems in physics of reactor shielding); sbornik statey, no. 2. Moscow, Atomizdat, 1966, 88-103

TOPIC TAGS: fast neutron, neutron energy distribution, radiation shielding, neutron scattering

ABSTRACT: The spectra of fast neutrons in iron and lead are measured directly and the asymptotic spectra are calculated in the P_4-th approximation of the method of spherical harmonics using recent measurements for the excitation functions on individual levels in iron and lead. Approximate account is taken of neutron moderation in elastic scattering, and anisotropy due to direct interaction in inelastic scattering. Experimental measurements of the spatial energy distributions of neutrons were done on iron and lead specimens measuring 710×710×600 mm. Two reactions were used as neutron sources: $T(d,n)He^4$ (14.9 mev) and $D(d,n)He^3$ (3.35 mev). Since the deuterium target had a thickness of 20 mg/cm^2, the resultant neutron spectrum in the latter case is not monochromatic. This fact was taken into consideration in the calculations. The neutron spectro-

Card 1/2

L 05046-67

ACC NR: AT6027924 $\mathcal{O}$

meter was a stilbene crystal combined with an FEU-13 photomultiplier and a 100-channel
amplitude analyzer. The theoretical and experimental spectra for iron and lead are.
compared and show generally satisfactory agreement. Orig. art. has: 9 figures, 1
table, 32 formulas.

SUB CODE:18,20/ SUBM DATE: 12Jan66/ ORIG REF: 011/ OTH REF: 010

Card 2/2 dlo

AUTHOR: Zhilkin, B.D.

TITLE: Examination of an Electro Inductive Flowmeter Suitable
             for Rapidly Pulsating Flows (Issledovaniye
             elektroinduktsionnogo raskhodomera dlya izmereniya
             bystroperemennogo raskhoda zhidkosti)

ABSTRACT: There are many problems of great importance in which
             the flow of fluid is highly unsteady and fluctuates
             rapidly, e.g. in combustion chambers, when investigating
             the actual process of mixing of constituents or
             spreading of flame, etc., as well as in the case of in
             investigation of engines over their unstable range of
             behaviour. In all these cases it is very important to be
             able to measure the flow of fluids in question and to
             obtain full information about the mean velocity,
             fluctuating component of velocity as well as its
             frequency of fluctuation etc.. There are several types
             of flowmeters suitable in many cases and these are dealt
             with in published literature (Ref.1, 2, and 3). When the
Card 1/9   circular frequency of pulsation exceeds magnitudes

SOV/147-58-3-9/18

Examination of an Electro Inductive Flowmeter Suitable for Rapidly
      Pulsating Flows

of 50 - 60 they begin to be less reliable. Out of many
types noted by Grey and Lin (Ref.4), according to the
author of this paper, the most suitable is the
electroinductive flowmeter operating in a constant
magnetic field and this is for the following reasons:
1) linear characteristic of frequencies in the range from
zero to several kilohertz; 2) linear relation between
the magnitude of the flow and the electromotive force on
the electrodes of the pick-up; 3) absence of any
adverse potentials which exist in electroconducting
liquids and the secondary circuit of the pick-up with the
alternating magnetic excitation; 4) absence of any
elements in the design of the flowmeter which could
introduce distortions in the flow of the fluid;
5) independence of the indications of the apparatus
from the viscosity, pressure and density of the medium.
The existing (i.e. described in Ref.5, 6 and 7)
flowmeters give in effect good results for medium range
of frequencies (500 c/s). In order to be able to
Card 2/9   investigate higher frequencies it appears rational to

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replace the variable magnetic excitation to a constant
one and, in addition, for the purpose of measuring both
the mean and the fluctuating component of the flow, it
was necessary to develop a special design of a
transducer with electrodes which would preserve their
electrical properties in the presence of a moving fluid
and which would not get polarized when transmitting flux
through the electro-chemical circuit of the transducer.
The analysis of such a transducer is the object of this
paper. In the first part of it the author discusses the
relationship between the electromotive force of
induction and the mass flow of fluids in the case of a
flowmeter of rectangular cross-section, giving also
some experimental results and, in the second part, the
electro-chemical processes on the electrodes of the
pick-up used in the flowmeter are discussed. Fig.1 shows
diagrammatically the set-up of the arrangement of the
electro-conducting fluid passing at right angle through
Card 3/9   the magnetic field $\bar{B}$ with a speed $\bar{w}$. The electric

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field $\overline{E}$, produced as a result of interaction of the
moving fluid and the magnetic field, evokes an
inductive e.m.f. in the fluid, ε^{IND}, which is detected
by the electrodes of the pick-up and amplified. Assuming
that the magnetic field is homogeneous, the walls of the
duct electrically non-conductive and the flow inside the
duct one-dimensional, then for a thin layer (along Y-axis)
of the fluid the laminar profile of velocity is Eq.1,
where W'_{cp} - is the mean velocity in the layer. Next,
by analogy with a unipolar machine, with ϕ being the
magnetic flux, Eq.2 follows, which on integration from
0 to be gives Eq.3. Since the velocity profile in
X-direction is similar to that in Y-direction, there will
also be a similar expression for ε^{IND} for a layer
parallel to X-axis. Therefore, to find the true magnitude
of the potential on the electrodes (taking into account
non-uniformity of the velocity distribution in the fluid)
we have Maxwell's equation, Eq.4, which for $\overline{B}$ = const.
reduces to Eq.5. Neglecting magnetic fields of the
closed currents in the fluid and noting that electro-

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static field is a potential field not only in a medium
at rest but also when it moves, we get Eq.6, 7 and 8,
where λ is the specific conductivity of the fluid. Since div
$J_{PR} = 0$, Eq.9 follows. Thus the problem of determining
the potential on the electrodes reduces to that of
solving two-dimensional equation of Poisson with the
following boundary conditions: 1) on the inner surfaces
of the non-conducting walls $\lambda_{CT} = 0$, hence Eq.10 follows;
2) potential φ is continuous everywhere and equals zero
at infinity. Solving Eq.8 by the method of Ref.8 gives
Eq.11 and 12. Multiplying Eq.9 by 2/b cos kπy/b and
integrating gives Eq.13 and 14 which through Eq.15 and 16
leads to Eq.17, 18 and 19. Since $w(x,y)$ depends on the
character of the flow (i.e. on Reynolds number) and is
still unknown, the theorem of mean value is applied in
order to determine the potential on the electrodes.
Further, assuming that ψ_1 and ψ_2 do not change in sign,
Card 5/9   Eq.20-24 follow, where φ = wab is the volume flow.

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An analysis of these results suggests: 1) when measuring
the mean flow at any section of the duct, the actual
velocity distribution does not affect the relationship
between the potential of the electrodes and the mass
flow of the fluid, i.e. Eq.24 is valid both in the
laminar and turbulent flows; 2) electromotive force,
induced in the fluid, is directly proportional to the
mass flow. Fig.2 shows some experimental results
confirming the above findings. However, the high
quality of the flowmeter, as indicated by the theoretical
analysis, was not fully realized on the models of the
apparatus. This is accounted for by the electro-chemical
phenomena on the electrodes of the pick-up. The
complicated chemical phenomena at the surface of contact
of a metal and electrolyte can be roughly separated into
two classes, those present when there is a current in
the electrolyte and those when there is no current in it.
When no current flows in the electrolyte there is a

Card 6/9   boundary layer formed on the electrodes which consists

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of a double layer of charged ions, which is somewhat
similar to a flat condenser with two facings. This
ionized layer, whose potential φE is shown in Fig.3, may
be subdivided into two parts: the first in which the ions
are tightly held at the surface and the second (diffused
layer) in which the ions are at a distance α (equal to ion
radius) from the surface. Mean value of the potential (ψ)
on the border for fairly diluted electrolytes depends on
the velocity (w) of fluid as follows: $\psi = 4 \pi \eta w / \varepsilon E$, where
η is the viscosity of the fluid, ε – dielectric constant
and E – electric field intensity. To obtain a stable
dynamic state and stable value of φE, it is necessary to
have one of the following electrochemical compounds:
$Cd/CdSO_4$; $Ag/AgNO_3$; $Zu/ZuSO_4$; $Ag/AgCl$ TB/KCl.
Fig.4 shows the electrolitic cell of the pick-up of such
a flowmeter, in which the electrodes are not subject to
polarization. If an electric cell $M/M{++}X/M$ be joined
into an external electric circuit then, with induced
e.m.f. in the fluid, there will be a current produced in

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the circuit of the pick-up. When this current reaches
a fairly large value (more than 10^{-6}a) electrodynamic
equilibrium at the contact between the metal and solution
is disturbed: on one electrode the discharge of ions
proceeds faster than the release of molecules from the
metal into the solution; on the other electrode the
conditions are reversed. As a result of this on the
border of the two phases there appears electromotive
forces of the opposite sense to the applied e.m.f. but
if the current is small (less than 10^{-8}a), the cells
remain practically unpolarized; neither is there any
any chemical polarization. Fig.5 and 6 show some
experimental data obtained with small currents. Based
on this evidence it may be said that it is possible to
produce a flowmeter capable of measuring the mass flow
of an electroconductive fluid pulsating with a frequency
of several thousand oscillations per second. Such a
flowmeter should consist of a pick-up (transistor) of
Card 8/9   special construction with a constant magnetic
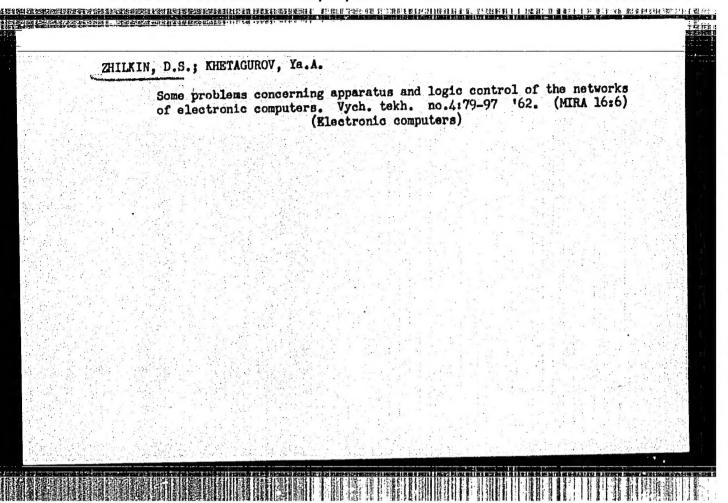
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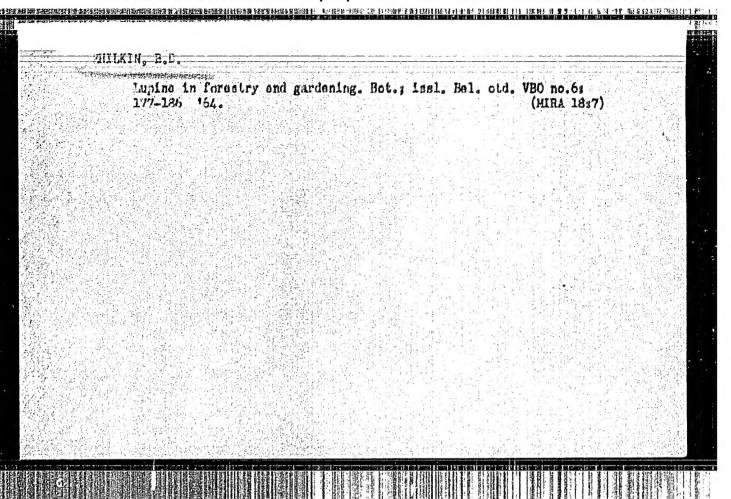   Pulsating Flows

       excitation, an amplifier of constant and variable signals
       and a recording instrument. There are 6 figures and
       10 references of which 3 are Soviet, 6 English and
       1 French.

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ZHILKIN, D.S.; KHETAGUROV, Ya.A.

Some problems concerning apparatus and logic control of the networks of electronic computers. Vych. tekh. no.4:79-97 '62. (MIRA 16:6)
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Lupine in forestry and gardening. Bot.; issl. Bal. otd. VBO no.6:
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Industrial wastes for finishing wall panels. Zhil. stroi. no.1:
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                    (Lugansk Economic Region—Walls)

AUTHORS: Rabinovich, I. B., Murzin, V. I., Zhilkin, L. S.

TITLE: The Isotopic Effect in the Viscosity of Deutero-glycerin and Ethylene Deutero-glycol

PERIODICAL: Zhurnal fizicheskoy khimii, 1960, Vol. 34, No. 9, pp. 1973 - 1975

TEXT: The authors wanted to clarify the relation between the isotopic difference in the viscosity and the association by means of hydrogen binding, and for this purpose they investigated the effect produced by the substitution of hydrogen by deuterium in the hydroxyl groups of glycerin and ethylene glycol upon the viscosity of these compounds. Deuterium was introduced into the alcohols by repeated exchange with heavy water under vacuum evaporation. The deuterium content, the density (ρ_4^{20}), and the refractive index (n_D^{20}) of the isotope analogues are given in Table 1. The viscosity was determined with an accuracy of about 0.2 %. As may be seen from Table 2, the isotopic effect in the viscosity for

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